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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/646,228

09/14/2000

Hideyoshi Horimai

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25944 7590 11/15/2007  
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EXAMINER

KUMAR, SRILAKSHMI K

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

11/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/646,228

**Applicant(s)**

HORIMAI, HIDEYOSHI

**Examiner**

Srilakshmi K. Kumar

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 44 and 46-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 44 and 46-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The following office action is in response to the Request for Continued Examination, filed on August 30, 2007. Claims 44 and 46-51 are pending. Claims 1-43 have been cancelled.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 44, 46-51 rejected under 35 U.S.C. 103(a) as being unpatentable over Travis (US 5,132,839) in view of Hattori et al (US 5,689,316) and further in view of Lo (US 6,108,029).

In reference to claims 44 and 49, Travis teaches a three-dimensional image display comprising a two-dimensional image forming means for forming a plurality of two-dimensional images by scanning light (col. 3, lines 13-16). Travis discloses three-dimensional image forming means for forming a three-dimensional image by projecting the plurality of two-dimensional images formed by the two-dimensional image forming means in directions different from each other (51-59).

Travis does not disclose where the scanning light has been subjected to time-modulation based on information on rearrangement of data of each pixel of the plurality of two-dimensional images. Hattori discloses where the scanning light has been subjected to time modulation based on the information on rearrangement of data of each of the pixel of the plurality of two-dimensional images in col. 3, lines 1-23. It would have been obvious to one of ordinary skill in the art to incorporate the time modulation disclosed by Hattori into the display of Travis as the

Art Unit: 2629

time modulation of Hattori provides real time display of an image as disclosed by Hattori in col. 1, lines 34-44.

Travis does not disclose each pixels of each two dimensional image is displayed alternately with each corresponding pixel of the images of the remainder of the plurality of two dimensional images. Lo teaches where each pixels of each two dimensional image is displayed alternately with each corresponding pixel of the images of the remainder of the plurality of two dimensional images in Fig. 3 and col. 2, lines 59-col. 3, line 5 as shown by the left and right images. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of where each pixels of each two dimensional image is displayed alternately with each corresponding pixel of the images of the remainder of the plurality of two dimensional images as taught by Lo into Travis as Lo provides an autostereoscopic display where 2D and 3D images can be displayed without losing pixel resolution (Lo, col. 1, lines 22-55).

In reference to claim 46, Travis teaches that the two-dimensional image forming means is a created by scanning light (column 3, lines 13-16).

The three-dimensional image is formed by projecting the two-dimensional images in directions different from each other (figure 5; column 8, lines 50-55).

In reference to claims 47 and 48, Travis teaches that the controller unit (item 99), coordinates the light projection direction and the synchronization data necessary for proper three-dimensional display (column 8, lines 55-63 and column 5, lines 38-45).

In reference to claim 50, Travis teaches wherein the three dimensional image forming means further has a region in which synchronization information for synchronized control of the display as a whole is recorded (col. 5, lines 38-45, col. 8, lines 55-63).

Art Unit: 2629

In reference to claim 51, limitations of claim 44, and further comprising, Travis discloses wherein the three dimensional image forming means is fixed (figs. 1-7).

***Response to Arguments***

3. Applicant's arguments with respect to claims 44, 46-51 have been considered but are moot in view of the new ground(s) of rejection.

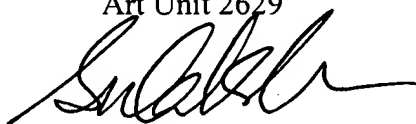
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srilakshmi K. Kumar whose telephone number is 571 272 7769. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Srilakshmi K Kumar  
Examiner  
Art Unit 2629



SKK  
November 11, 2007